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UNIVERSITY OF CALIFORNIA
COLLEGE OF AGRICULTURE
AGRICULTURAL EXPERIMENT STATION

PROJECT NO. 1166

REPORTED BY D. W. Henderson

Davis Irrigation Dept.
Campus and Division or Department

DATE January 1957

Annual Summary Statement of Progress for year ending Dec. 31, 56 ....
This Summary is in addition to, not in place of, more complete reports of progress prepared periodically and at least once a year with a deadline of Feb. 1.

Title: Peat Land Conservation and Peat Dust Abatement

Personnel: D. W. Henderson

Principal results of year:

Because of climatic and marketing conditions, no sprinkling was done on Mandeville Island during the 1956 season, and no further evaluation of the practice could be made. It is anticipated that the work will resume in 1957.

The only practical way to convey water to sprinkler systems is to distribute it through drainage ditches. Some growers feel that sprinkling would not be practicable because filling the drain might cause excessively high water tables and even result in crop injury. The effect of filling drain ditches on the water table adjacent to the ditches was studied in the Hayes property on Ringe Tract. Alan Carlton cooperated in the experiment.

The data have not been completely analyzed yet, but the study showed that the water table rose very rapidly (reaching high levels in a few minutes or hours, depending on distance from the ditch) and declined very slowly. The rapid rise indicates very pervious subsoil and the slow decline is attributed to poor condition and low capacity of the drain ditch. Under conditions such as those tested, using drain ditches for water conveyance to sprinkler systems might be a dangerous practice. Increased drain capacity might remedy the situation, however. Because of variations in subsoil permeability, a test such as the one described should be carried out wherever sprinkling is contemplated.

Publications: None

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